

**BEFORE THE
UNITED STATES DEPARTMENT OF TRANSPORTATION
WASHINGTON, D.C.**

In the Matter of)		
)	DOCKET Nos.	OST-97-2881
)		OST-97-3014
COMPUTER)		OST-98-4775
RESERVATIONS SYSTEMS (CRS))		OST-99-5888
REGULATIONS)		
)		
Notice of Proposed Rulemaking)		

**SHEPHERD SYSTEMS INC. SUBMITS THE FOLLOWING COMMENTS IN
RESPONSE TO THE DEPARTMENT'S NOTICE OF PROPOSED
RULEMAKING CONCERNING COMPUTER RESERVATIONS SYSTEMS, 67
FED. REG. 69366 (Nov. 15, 2002)**

Communications with respect to this document should be addressed to:

Chris Colaco
Shepherd Systems
1401 Manatee Avenue West
Suite 1000
Bradenton, Florida 34205
Tel : +941-747-5007
Fax : +941-708-4461
e-mail chris.colaco@shepherdsystems.com

INTRODUCTION

Shepherd Systems is an independently run Florida-based company, part of the Cendant group of companies. The principal line of business is the development and provision of web-based business intelligence tools built on Marketing Information Data Transfer (MIDT). Additionally, Shepherd Systems provides MIDT data processing services. Shepherd's customer list includes large and small airlines from all over the world. The company also serves the global travel agency community with an array of products. Given the nature of Shepherd's business model, we have given very close consideration to the Notice of Proposed Rulemaking (NPRM) in question, particularly those sections pertaining to proposed changes for the delivery of MIDT data.

The stated goal of the Department of Transportation (the Department) is set forth in Section H9, of the NPRM, Federal Register page 69403:

“...to allow the systems to sell as much data as possible while minimizing the potential harm to airline competition and to enable travel agencies to protect proprietary business data.”

With regards to possible harm to airline competition, the DOT seems to be principally concerned that detailed MIDT data, showing how many seats are being sold on each flight of each airline by individual agencies, may be used by hub dominant airlines to keep new entrant low-fare airlines out of their hubs.

There is a further concern that travel agencies may be at a disadvantage when negotiating performance-based contracts with airlines. This concern arises because, originally, only the airlines (and then only the larger ones), had access to the necessary MIDT data for evaluating such performance.

To achieve its goals, the DOT is proposing restrictions on the type of data sold to airlines. They will consider limiting those restrictions to data generated from bookings for domestic travel. The two major proposals set forth by the Department are:

- 1) *“A ban on the release of data on bookings made by individual travel agencies”*
- 2) *“A ban on the release of data on bookings for airlines that have not consented to the release of data on their bookings”*

The DOT does recognize a number of legitimate uses for MIDT data. Generally speaking these uses would appear to fall into the areas of network planning, marketing, revenue management and pricing, particularly in the non US-domestic arena, (see section H9 on page 69404).

Shepherd Systems can demonstrate that:

- a) The proposed regulations would have a detrimental effect on the consumer
- b) There is no competitive need for MIDT to be regulated
- c) The desired competitive effect would not be obtained if the proposed regulations were to be imposed
- d) MIDT-based systems vendors are being unfairly discriminated against, whilst vendors of airline business intelligence solutions that deliver essentially the same functionality but use different databases will be unencumbered by similar onerous restrictions
- e) The uncontrolled introduction of any rules that may still be considered could have severe adverse effects

a) MIDT REGULATIONS WILL BE DETRIMENTAL TO THE CONSUMER

The availability of MIDT in its present form directly benefits the air-travel consumer through lower costs and better schedules. This is because proper analytical techniques applied to MIDT data lead to much more effective and efficient decision making by an airline in the fundamental business processes of Network Planning, Revenue Management & Pricing, and Sales.

In the Network Planning arena, MIDT data permit an airline to properly evaluate market size and potential, and to recognize and project developing demand trends. This reduces risk and uncertainty (and hence cost) when determining whether to operate a given route, what type of equipment (capacity) to deploy to optimally meet existing demand, what schedules will be the best fit for the customer etc. The net effect is that the Network Planning process is better able to develop scheduling plans that more closely match consumer demand. As a data source for supporting Network Planning decisions MIDT is unparalleled in terms of its comprehensiveness (truly worldwide scope) and timeliness. As such it is the most cost-effective method of providing the necessary market input to support the Network Planning decision-making process.

In the Revenue Management and Pricing field, the comprehensive and forward looking aspects of MIDT data are used to help calibrate market demand settings in the inventory control systems, and to forecast future demand at various price levels. Effectively this means that pricing and capacity will be more optimally adjusted to market / consumer demand than would otherwise be possible. In terms of providing insight into developing total-market demand trends for forecasting purposes MIDT has no equal.

In the sales arena, MIDT data is the most effective tool for identifying specific distribution outlets that can make an airlines product offering available to the consumer most likely to benefit from it. For instance, in the bigger picture an airline may have determined (with the help of MIDT) that there is sufficient market demand to warrant the introduction of a new service on a particular route. Once the new service is scheduled, MIDT will help the airlines sales force identify, in the most cost effective manner, those agencies that can benefit most from having capacity and optimum pricing made available to their customers, the flying public. Without MIDT the process would be much more cumbersome, costly and less precise, and these negative factors would be reflected in the service and price offering to the consumer.

As noted above, MIDT subjected to proper analytical techniques has benefits for the consumer at every level. The proposed changes to MIDT contained in the NPRM will damage MIDT, and the negative effects will felt by the consumer in both pricing and scheduling.

The proposal allowing airlines to opt-out of MIDT will reduce its scope as a comprehensive store of market data. Scheduling, inventory steering and pricing decisions will have to be made with a less complete picture and this will undoubtedly lead to a less optimal product offering to the market.

Similarly the proposal to mask agency-level detail will drastically reduce an airlines ability to identify distribution outlets that can benefit from specific pricing and capacity offerings. Again, the consumer cannot help but bear the cost.

The contention that the consumer will be hurt by the proposed regulations is also supported in a comprehensive study by Global Aviation Associates entitled

“The Impact of Regulation on the Transparency, Integrity, Utility and Competitiveness of databases in the commercial aviation Industry” (see attached).

b) NO COMPETITIVE NEED FOR REGULATION OF MIDT

The Air Carrier Association of America (ACAA) has expressed concern with the availability and use of MIDT. That concern seems to be based on a perception that major network carriers can use the data to leverage the smaller low fare carriers in an anticompetitive manner. In fact a review of the economic situation of the airline industry today reveals no reason whatsoever for concern to be raised in this respect.

It must be clear to even a casual industry observer that the traditional users of MIDT data are having a substantially harder time adjusting to the new economic realities of the airline world than are their smaller, more nimble counterparts. This impression is forcefully confirmed in several major studies by respected industry consultancies.

In the recent study by Global Aviation Associates entitled *“The Impact of Regulation on the Transparency, Integrity, Utility and Competitiveness of databases in the commercial aviation Industry”*- there is ample evidence of the success of the low-fare segment of the airline industry (*see pages 13-16*).

Eclat Consulting, in a presentation entitled “The Role and Impact of Low Cost Carriers” dated May 2002 (www.eclatconsulting.com/MITPres3book.pdf), makes clear that the growth of the low-cost sector is being achieved in those markets where they are in direct competition with the major hub carriers: ***“Low fare carriers out-carry every major network carrier at the cities they serve in common”***... ***“The reality – low fare carrier penetration has pierced many of the network industry strongholds”***... ***“Low fare carrier market penetration has been***

greatest in the largest US markets since 9/11". The same study further makes clear that this success of the low-fare sector is generalized across the country: "The low fare / niche carrier segment of the industry has increased its share of service in every US region since 9/11".

Further clear evidence of the remarkable success of the sector can be found in industry publications such as Aviation Daily. In the 12-month period through December 2002, while the major carriers were cutting capacity and losing traffic, the national and regional carriers experienced fully 33% traffic growth, and increased capacity by 26% (source: Aviation Daily Thu/Fri Jan 16/17 2003, pg 7&8). And even with these very substantial capacity increases the smaller carriers increased load-factor faster than the majors who in fact decreased capacity.

It is probably useful to note that for the year 2002, Spirit airlines experienced a 23% traffic growth, AirTran experienced a 24% traffic growth and JetBlue experienced fully 108% traffic growth. At the same time American Airlines experienced a 4% traffic decline, United experienced a 6% traffic decline, and US Airways experienced a 13% traffic decline. It is well known that the latter two have been forced into Chapter 11, and the financial health of American is stressed.

Given the expansionary and generally profitable situation of the low fare carriers, and the contraction and substantial losses experienced recently by the major network carriers, it is not clear which group should be protected against which other group.

The above would suggest that there is no pressing economic need to regulate MIDT to safeguard the fortunes of the smaller airlines. But beyond the

lack of an economic reason to do so, there is the fact that structural changes in the airline distribution world are naturally having their effect on MIDT.

The increasing use of GDS-bypass distribution methods, particularly by the smaller airlines, but also by the majors, means that there is no need for the proposed “opt-out” regulation. Indeed the decreasing comprehensiveness of MIDT as a source of industry data is leading a number of MIDT customers to re-think their investment in the product, and to put pricing pressure on the vendors. “Opt-out” is taking place naturally, without regulation, at a pace dictated by free-market forces.

The argument has also been made that MIDT needs regulation because this powerful tool has been available exclusively to the major carriers. Only they, the argument went, had the financial wherewithal to cover the substantial cost of the raw data, processing and IT tools required to make use of it. In the time since this argument was first put forward there have been enormous developments in market segmentation and product differentiation in the MIDT data-provisioning world. Today MIDT is available to airlines large and small, as well as to travel agents. The argument clearly no longer holds.

Today smaller-sized carriers can purchase targeted subsets of data that are meaningful in their business context. This data is available at a fraction of the price charged to a major carrier that requires a global dataset to support its worldwide operations. Indeed these smaller-sized carriers can purchase complete web-based MIDT solutions, based on their relevant data subsets, which include the necessary processing and market-intelligence software. This liberates them from the need to invest in expensive IT infrastructures and support staff.

Similar products are available for, and being used by, travel agents. No longer is it the case that travel agencies are at the mercy of data analysis methodologies imposed by major carriers during negotiations on performance-based contracts. The new MIDT tools available to them at reasonable cost have leveled this playing field, giving them the ability to do their own analysis of their performance in relevant markets.

Considering all of the above, there is no need to regulate MIDT data.

**c) REGULATING MIDT WOULD NOT MEANINGFULLY ADDRESS
THE DOT'S CONCERNS ABOUT COMPETITION**

The DOT is right to strive for an environment where true competition flourishes and the consumer reaps the benefits. In the airline world nobody can be opposed to the notion that new entrants with innovative business models must be allowed fair access to compete for market demand. It must also be obvious to all that new entrants will face stiff competition in this de-regulated and low-margin industry. This healthy competition will come not only from the majors, but from other new entrants as well. No new entrant has an inalienable right to succeed, and indeed many may fail, but those with truly innovative approaches that serve the consumer with good service at lower costs will naturally survive, and even flourish. The statistics quoted above prove this point.

As we have made clear above, Shepherd Systems does not believe there is a generalized need to regulate MIDT data in order to safeguard competition in the airline sector. We have also made clear how the availability of MIDT data provides substantial benefits to the consumer. It is nevertheless a fact in any industry that occasionally certain market players will resort to anti-competitive behavior in an effort to maximize their position. Airport slots, loyalty programs, pricing, interlining, scheduling, etc. can probably all be used in an anticompetitive

manner. However, it is by no means clear that regulating MIDT data would have a significant impact on the ability of an airline to engage in anti-competitive behavior if it was so inclined. On the other hand it is clear, that such regulation would have a detrimental effect on the consumer. The notion that something that can be beneficially used should be regulated to a degree that would cause it to disappear, simply because it might be used in a damaging manner, makes little sense. As with any similar situation, the approach must be to deal directly with the anticompetitive behavior, and not to regulate MIDT itself. Further, we suggest that the existing antitrust laws and Department regulations are sufficient to deal with any transgressions that may arise in the airline industry. Recent evidence of that is the position of the department relative to the announced code sharing agreement between Delta, Northwest and Continental Airlines.

**d) REGULATING MIDT WOULD UNFAIRLY DISCRIMINATE
AGAINST MIDT-BASED SYSTEMS VENDORS**

There is a clear and strong demand for airline business intelligence data and tools. As has been demonstrated, MIDT is an important data element that goes into developing management information and decision support systems for the airline industry. Several companies such as Shepherd Systems have specialized in the provision of processing services and software systems designed to maximize the use of MIDT. The proposed regulations would severely cripple MIDT as a source of industry data. There are however alternate industry data sources that provide substantially the same level of data detail as MIDT, but which would not be subjected to the same onerous regulations. ARC/BSP for instance sells comprehensive detailed competitive data to airlines based on agency ticket sales. The DOT itself reaps financial benefit from selling the comprehensive market data that it has. Before any regulation can be considered for MIDT, a comprehensive survey must be undertaken to make visible all alternate sources of similar data. Then an assessment of the potential competitive impact of each source must be

made, and compared to the case for regulating MIDT. Only after these steps are taken can any regulation fairly be considered. At that point, if any regulation is still to be implemented, it must be applied to ALL suppliers of marketing data that can conceivably be used for anti-competitive purposes. Further, any as-yet undeveloped source of marketing data that eventually becomes available must not be offered to the market before it is subjected to the same competitive-impact review. Such an approach might even have repercussions for the provision of marketing data in other industries.

**e) THE UNCONTROLLED INTRODUCTION OF NEW REGULATIONS
MAY HAVE SEVERE ADVERSE EFFECTS**

We have made a clear and persuasive case for not modifying the existing MIDT regulations. Should the DOT nevertheless decide that it must proceed with such regulation then it must consider the following points:

MIDT customers typically buy the data from several vendors who each cover a portion of the total market. The data from the various vendors is then combined into a single comprehensive dataset that can subsequently be analyzed at various levels of geographic aggregation. This aggregation is possible because there is a standardized lowest level of point-of-sale detail in all MIDT vendors' datasets, namely the travel agency. Were the regulations to require that travel agency data be aggregated to a higher level prior to being made available for sale, then time must be made available to agree and implement standards for this new common starting point. This would be important to ensure that all vendors are able to standardize the aggregation model. Clearly, the data would become unmanageable and largely useless if one MIDT vendor decides to aggregate to a state level, another to a country level, and a third to a metropolitan level. And even if a metropolitan level is agreed to, then steps must be taken to ensure that one vendor's definition of New York is the same as another's. Without such

standardization the ensuing data chaos will render MIDT effectively useless. After the standardized definitions have been agreed, time must be made available to adapt and test all of the vendors, airlines and third-party suppliers IT systems to these new definitions. Considering the very substantial number of vendors, airlines, third party systems suppliers and others involved, the coordination and implementation of such a standardization project will require at least 3-4 years, and substantial funding will have to be identified by all involved to adapt their IT systems. If this transition time is not made available it is quite probable that the confused and chaotic situation that ensues will cause substantial numbers of customers to simply stop buying MIDT. This will have adverse consequences for vendors as well as data and systems providers such as Shepherd Systems

CONCLUSION

In summary, Shepherd Systems urges the department to fully examine all aspects of the various extant databases, pro and con, including MIDT. We believe that MIDT as provided today benefits the consumer in meaningful and tangible ways. We do not believe a case can be made that regulation of MIDT data is necessary. Moreover, if the Department believes that there is anticompetitive behavior, it should deal with that behavior and those entities involved with the tools provided under 49 U.S.C. 41720 (old Section 411). Shepherd Systems is of the view that regulation of MIDT without a comprehensive review of all other industry data sources would result in unfair discrimination against the MIDT database, its providers, and its users.

If revisions to Part 255.10 are to be introduced then a time frame of 3-4 years must be made available for the transition. Without this then even the legitimate uses recognized by the DOT for MIDT will be destroyed.

An abstract graphic featuring a blue and red color scheme. In the center, there is a computer monitor displaying a yellow screen, with a keyboard in front of it. The background consists of various geometric shapes, including rectangles and squares, in shades of blue and red, creating a sense of depth and complexity.

THE IMPACT OF REGULATION ON THE TRANSPARENCY, INTEGRITY, UTILITY, AND COMPETITIVENESS OF DATABASES IN THE COMMERCIAL AVIATION INDUSTRY

March 2003

Prepared by:

Jon F. Ash, Managing Director
Global Aviation Associates, Ltd.
1800 K Street, NW – Suite 1104
Washington, DC 20006
(202) 457-0212
www.ga2online.com

Prepared for:

Shepherd Systems
1401 Manatee Avenue West
Bradenton, FL 34205

Table of Contents

	Page
ES-EXECUTIVE SUMMARY	1
OBJECTIVES OF THE STUDY	5
STUDY CONCLUSIONS	5
1.0 BACKGROUND--DEREGULATION AND THE EVOLUTION TO A POST-911 ERA IN COMMERCIAL AVIATION.....	8
1.1 History.....	8
1.2 Evolution to Deregulation.....	8
1.3 Industry Matures	9
1.4 The Post 9/11 Era.....	10
1.5 The Current Industry Crisis	13
1.6 Shifts in Market Share	15
1.7 Marginal Profitability.....	17
2.0 BACKGROUND-INFORMATION SYSTEM EVOLUTION	21
2.1 Regulatory Issues Emerge.....	22
2.2 Marketing Information.....	23
2.3 Information Systems Promote Competition.....	24
2.3.1 History of Database Development and Utilization	24
2.4 User Survey.....	25
3.0 THE CRS REGULATORY ENVIRONMENT	28
3.1 History and Evolution of the Regulatory Environment	28
3.2 Current Regulatory Environment.....	29
3.2.1 Database Management in the Current Environment.....	30
4.0 NOTICE OF PROPOSED RULEMAKING (NPRM) ON COMPUTER RESERVATIONS SYSTEMS –Docket OST-1997-2881	33
4.1 Source of Proposed Changes to CRS Regulations.....	35
4.2 Impact of Proposed Changes to Market Based System	36
4.2.1 Comprehensiveness.....	36
4.2.2 Discriminatory Nature Of The Proposal	36
4.2.3 Cost Effectiveness.....	36
4.2.4 Limits Competition	37
4.3 ADVERSE IMPACT ON THE CONSUMER	38

**THE IMPACT OF REGULATION ON THE TRANSPARENCY, INTEGRITY,
UTILITY, AND COMPETITIVENESS OF DATABASES IN THE
COMMERCIAL AVIATION INDUSTRY**

ES-EXECUTIVE SUMMARY

BACKGROUND

Over the past twenty years, the distribution of travel has been shaped by Computer Reservations Systems (CRSs), later referred to as Global Distribution Systems (GDSs). Travel agencies have historically sold up to 60%-80% of all air travel, acting as agents of the airlines, and most of these sales are via GDSs.

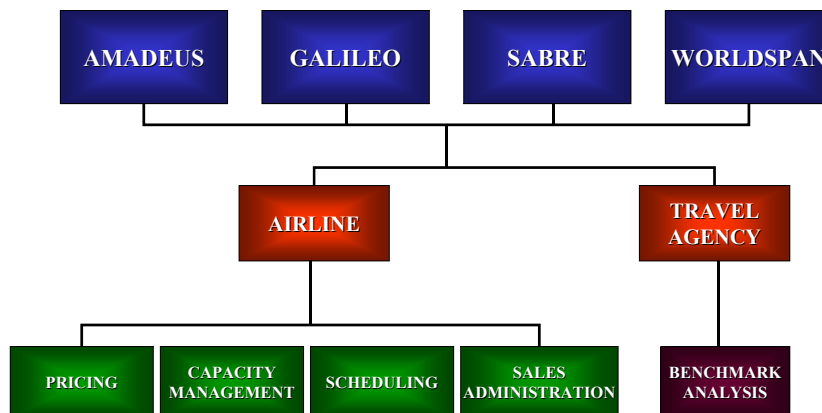
During the more recent fifteen years or so, the CRS/GDS paradigm has supported the agency channel, and for a number of reasons, this has prompted the U.S. government to regulate the manner in which the CRS/GDS is used to sell air travel and to distribute information that derives from those sales.

During the past five years, with the evolution of high-speed processing technology and the Internet as a new and user-friendly channel of distribution, it has become obvious that distribution channel balance was shifting toward other alternatives.

The CRS/GDS regulations have encompassed a particularly unique facet of GDS capability, and that is the manner in which GDSs are allowed to distribute what is referred to as “Marketing Information”.

Within the airline industry, this information database, Marketing Information Data Transfer (MIDT), is available in a timely manner and contains both historical and prospective data with respect to origin and destination travel patterns, with further booking information related to source of sale, class of service booked, and other information that is useful to monitor existing and future trends for sales and distribution planning purposes. Equally important, the MIDT database gives airline capacity planning and pricing managers the tools necessary to better fit supply and price with the existing and expected demand patterns. In essence, the databases that evolved became increasingly more comprehensive and flexible in terms of assisting airline sales and planning management. The MIDT databases do not contain passenger name, credit card, or other proprietary information. Consequently, there is no issue of privacy.

DATABASE MANAGEMENT MIDT



The chart above defines the flow of information from the GDSs to the airlines and travel agencies for their use in managing and benchmarking their performance. It should be noted that in order for the data to be useful as a management and planning tool, systems and software need to be designed to clean and organize the data. Thus, when airlines receive the data, they either provide their own conversion systems or utilize processing and systems vendors to organize it. Information systems and technology vendors are now able to provide that data to airlines as well as travel agents, and a number of agencies are currently testing the utility of the databases.

In November 1984, the government began to regulate CRSs, and in the 1992 revisions enhanced the regulation of Marketing Information Data Transfer (MIDT) (Part 255.10-Marketing and booking information.)

CRS regulations, Part 255.10, govern the use of marketing information, and provide that, “(a) Each system shall make available to all U.S. participating carriers on nondiscriminatory terms all marketing, booking, and sales data relating to carriers that it elects to generate from its system.” And, “(b) Each system shall make available to all foreign participating carriers on nondiscriminatory terms all marketing, booking, and sales data relating to bookings on international services that it elects to generate from its system, provided that no system may provide such data to a foreign carrier if the foreign carrier or an affiliate owns, operates, or controls a system in a foreign country, unless such carrier or system provides comparable data to all U.S. carriers on nondiscriminatory terms.”

This generally straightforward set of regulations has served the industry well over the past years in that it provides for full disclosure, transparency, nondiscrimination, and ultimately efficiency for airlines and consumers.

In November 2002, the U.S. Department of Transportation (DOT) issued a Notice of Proposed Rulemaking (NPRM) that, if implemented as proposed, would result in immediate and significant changes to the availability of MIDT data. The DOT is proposing a revision to Part 255.10 that could lead to two major changes in the manner in which the data is made available.

First, GDSs and MIDT vendors would be required to suppress certain parts of the sales and booking data related to the source of the booking, i.e. travel agents. In other words, all agency-level data in this historically unfettered database would be “masked.”

Second, carriers would be given the ability to “opt out” of having their data provided through the MIDT database.

These impediments to the comprehensiveness, nondiscrimination and transparency of the MIDT data could have significant adverse impacts on the efficient management of the commercial aviation system, and ultimately, adverse impacts on consumer choice. Moreover, to the extent that the Department believes it is aiding competition and the “low cost” carrier in particular, it should examine the relative performance over the past few years of the low cost versus major network hub carriers.

AIRLINE PROFIT PERFORMANCE 2002

Network Carriers	Capacity Growth 2002 / 2001 %	Operating Profit (\$ billions)	Operating Margin %
American Airlines	(1.4)%	\$(3.3)	(19.9)%
United Airlines	(9.7)	(2.8)	(19.9)
Delta Airlines	(4.1)	(1.3)	(9.8)
Low Fare Carriers	Capacity Growth 2002 / 2001 %	Operating Profit (\$ billions)	Operating Margin %
ATA	8.7%	\$(0.160)	(12.5)%
Southwest	5.5	0.417	7.6
jetBlue	95.8	0.105	16.5

This chart is largely self-explanatory and clearly indicates that the low fare carriers are continuing to expand their market share, at the expense of the major network carriers. This expansion is taking place despite the worst economic climate imaginable.

In view of this recent history, Shepherd Systems, a firm specializing in the development of travel industry marketing and information systems and databases, retained Global Aviation Associates, Ltd. (ga²), to undertake a study of the potential impacts on the

industry of the changes being proposed in Part 255.10 of the Department's CRS regulations.

OBJECTIVES OF THE STUDY

The study has been established with the following objectives:

1. Define the history and evolution of the airline industry, distribution systems, and regulations in order to;
2. Establish a framework for the evolution and reasonability of existing regulations governing CRSs.
3. Draw conclusions relative to the efficacy of the current regulations with respect to airline planning, pricing, inventory management, and sales administration activities. As a corollary, examine how the November 2002 NPRM and proposed changes to Part 255.10 would impact the management of existing information systems, and ultimately the consumer.

In order to achieve these objectives, it has been necessary to rely on a great deal of research into the history and development of the industry, and to assess the role and effectiveness of the regulations governing CRSs. We have also interviewed numerous U.S. and foreign air carriers relative to the potential impacts of the changes proposed by the Department. Finally, we have discussed these changes with CRS/GDS managers to determine and assess the impact that the changes would have on their businesses.

STUDY CONCLUSIONS

The study and analysis suggests that the existing system is working well, and there is no need for modifications to Part 255.10, particularly during this period of extreme dislocation within the major network carrier component of the U.S. commercial aviation industry.

Study of the MIDT and other databases and regulations, and discussions with numerous users and providers of the MIDT databases and analytical tools supported by MIDT lead us to conclude that:

1. The existing MIDT database has been extremely useful to market and route planning, as well as distribution and sales management personnel in the major network carriers. To eliminate this tool, at this time, would jeopardize the ability and timeliness with which carriers need to adjust capacity planning, pricing, inventory management, and sales strategies in response to the ever more rapidly changing market conditions.
2. Modification or restrictions to the MIDT data would lead to a less than comprehensive database. This would likely result in the GDSs losing their ability to sell the data since its comprehensiveness, competitiveness with alternatives, and therefore utility to the purchaser will decline considerably. We also were advised by airlines that if transparency and comprehensiveness of MIDT is limited by regulation, they will be forced to rely more fully on alternative databases that are neither as comprehensive or current.
3. Modification or restrictions to the MIDT data would be an inappropriate vehicle to correct market competition problems that the Department perceives to exist. Those problems, if they exist at all, should be dealt with through the use of the appropriate means made available within the Federal Aviation Act, 49 U.S.C. 41712, which allows the Department to prohibit unfair methods of competition in air transportation.
4. It is likely that, over the next four to five years, booking patterns will continue to drive shifts in the proportion of travel being booked by traditional channels, including GDSs. The MIDT data may, over time, become less comprehensive and competitive. This suggests that if the Department wants to change the reporting and dissemination of MIDT, it may be targeting the wrong database at the wrong time. That is, as CRS's market share diminishes, other databases will only surface to replace the data that MIDT doesn't have anymore. In other words, the "market" should and can adjust itself, over time. This also

begs the question, shouldn't the Department be attempting to regulate all the databases? Certainly the answer is no.

THE IMPACT OF REGULATION ON THE TRANSPARENCY, INTEGRITY, UTILITY, AND COMPETITIVENESS OF DATABASES IN THE COMMERCIAL AVIATION INDUSTRY

1.0 BACKGROUND--DEREGULATION AND THE EVOLUTION TO A POST-911 ERA IN COMMERCIAL AVIATION

1.1 HISTORY

In 1938, the U.S. Congress established the Civil Aeronautics Board (CAB, or the Board) as the regulatory vehicle to determine which airlines would have the authority to provide what types of service and on what routes. The CAB would also regulate prices the airlines could charge the traveling public. In the process, it established two types of carriers, the “trunks” and, after World War II, the “local service” carriers.

Between 1938 and the 1960’s, little changed. Regulation was rigid and the CAB utilized pricing regulation to engineer value and social judgments. For example, it determined that short-haul market passengers deserved to pay less than the cost of providing that service. Therefore, it allowed airlines to make greater profits in long-haul markets in order to subsidize the short haul services that they offered. The system worked reasonably well, although it can safely be said that there was less than rigorous competition and the consumer was locked into an economic model that, in order to survive, had to charge prices higher than those that would be available in a free and open market. It was, in effect, a cost-plus model for the airlines, although air carrier earnings were less than spectacular and certainly less than industry in general.

1.2 EVOLUTION TO DEREGULATION

By the 1960s, academic economists began to question the validity of the regulatory model in terms of its delivery of a reasonable service at a reasonable price. By the mid-1970s, this prompted discussion in Congress of the merits of deregulating the industry.

Congress, in its investigation of deregulation, took note of the fact that airfares in large deregulated intra-state markets in Texas and California were substantially lower than in the highly regulated interstate markets.

By 1977, Presidents Ford and Carter had appointed more “free market” oriented members to the Board, leading to more flexible and market driven decision-making. For example, the post-1977 Board allowed more and more pricing flexibility, and as a result airfares dropped over the next few years while traffic grew at well above historical rates.¹

Finally, in October 1978, after much arm-twisting of a reluctant airline industry, Congress was able to enact, and President Carter signed into law, The Deregulation Act of 1978. The Act, among other things, provided for the freedom of air carriers to enter and exit markets at their own initiative, and with freedom to charge prices that were market, rather than regulatory mechanism driven. The Act also provided for the sunset of the CAB on January 1, 1985, with its remaining duties being transferred to the Department of Transportation.

Between 1978 and 1982, a plethora of new entrant airlines attempted to secure a foothold in the U.S. domestic market. Just as rapidly, most fell by the wayside in the wake of the economic recession that began in 1981 and lasted for roughly two years. In effect, proliferation of the number of carriers turned into excess capacity and deteriorating earnings. The undercapitalized and poorly managed new entrants failed and were acquired or liquidated.

1.3 INDUSTRY MATURES

During the late 1980s, the industry recovered, and once again new entrants and major network carriers began to introduce too much capacity. As a result, the relatively strong financial results of the late 1980s, turned into severe losses and the accompanying financial leverage of the industry in the early to mid-1990s.

¹ Congressional Budget Office, “An Overview of Airline Deregulation.” Washington, D.C. July 1988.

However, a trend of the 1990s that went largely unnoticed until the events of 9/11 was the growth of a number of low cost/low fare airlines. These carriers, led by Southwest, represented only 8% of the industry capacity in 1992, but by 2002 had grown to 18% of industry capacity.² This market penetration resulted in the low fare carrier being able to establish pricing benchmarks in a host of very large city-pair markets throughout the U.S.

1.4 THE POST 9/11 ERA

“It is true of any commercial endeavor that when costs exceed revenues, losses accrue. This is hardly a sustainable business model yet it characterizes the U.S. airline industry in recent years, which has accumulated a collective loss in excess of \$17 billion since January 2001. The underlying structural problems are exacerbated by the events of 9/11, and anticipation of further disruption in the Gulf. The structural problems preclude an easy fix, and perhaps even more critically for the industry, both sides of the equation, revenue and cost, are broken at the same time.”³

“While the events of 9/11 produced nothing but negative consequences as far as the economic well being of U.S. commercial aviation was concerned, the fact remains that the industry’s financial health was more at peril than many acknowledged at the time. The decline in economic activity and the attendant impact on “business travel” (relatively high yield tickets with minimum restrictions) was generally regarded as a temporary setback, typical of the cyclic nature of airline earnings. In retrospect, it was anything but typical. The slow-growth economy that was characteristic of late-2000 and early-2001 came at a time when airline customer dissatisfaction had reached record levels. Airport congestion, flight delays, declining passenger service, and a bifurcated pricing environment had the combined affect of curtailing activity generally but also driving

² Global Aviation Associates, Ltd. “Market Structure Implosion,” October 15, 2002, pg. 3.

³ AvStat Associates, Global Aviation Associates, Ltd., Stanford Transportation Group, “US Aviation Industry Restructuring” October 25, 2002.

loyal (and frequently high yield) passengers to explore alternatives to the Legacy Major carriers.”⁴

There has been great progress in the field of technology, planning, sales and yield management – load factors are also at record levels. Carriers can successfully fill airplanes with passengers and still lose an inordinate amount of money. It has become increasingly clear that the U.S. airline industry is at a critical inflection point in its history and that the current rules of engagement have changed -- possibly forever. In order for the legacy major carriers (American, Continental, Delta, Northwest, United, and USAirways), (hereinafter “Legacy Majors”) to survive in the future, nothing short of an industry restructuring (including both revenue maximization and cost control) is in order.⁵

- Costs: USAirways’ and United’s recent Chapter 11 bankruptcy filings send a very basic message: operating costs must decline, and by court order if necessary;
- Revenues: The historic reliance on business (high yield) travelers to produce only single-digit industry profit margins has proven to be an extremely dangerous proposition, *especially* in a difficult economic environment.

In the more than twenty years since the airline industry was deregulated, a number of novel strategies and systems were developed by carriers, put in-place, and further refined. Frequent Flyer programs, yield management systems, corporate discount programs, the hub-and-spoke network, and code-sharing are some of the most obvious -- and there were many others to be sure. Given the highly competitive nature of airline operations during this period, the most significant of these innovations were adopted (and frequently modified) by virtually every major carrier in turn. With the obvious exception of Southwest Airlines and its imitators, the commonly accepted business model of how to

⁴ Ibid.

⁵ Ibid

run a profitable company was thought to fit within a relatively standard set of parameters -- until now.

According to the study, “Restructuring the U.S. Airline Industry,” the important conclusion is relatively simple: standard and generally accepted business practices can no longer be held as sacred. Given the dramatically different operating conditions post-9/11, every airline must assess precisely how they conduct business and make changes where necessary -- a re-engineering process that has only just started in earnest. Some of the more significant changes to be announced or contemplated are as follows:

- Hubs: The de-peaking of American’s O’Hare hub schedules in Chicago and Dallas (in actual fact, copying an earlier experiment undertaken by Delta at its Atlanta hub) proved that these complexes operate far from optimally. Indeed, the long-held theory that hubs must consist of distinct waves of departure and arrival banks has recently been re-thought;
- Fleeting: While it is far to soon to anticipate or even discuss an industry re-fleeting, concerted efforts are being made to eliminate older, more costly, and less efficient sub-types and “extraneous” (non-family) models of aircraft. This trend became quite apparent immediately in the wake of 9/11 as perhaps 1,000 units were removed from scheduled service and may be parked indefinitely.
- Pricing: Management of virtually every legacy major has acknowledged that the pricing structure is terminally flawed; that fundamentally, there is a huge disconnect between business and leisure fares (6-to-1 ratio in coach). Unfortunately, no single carrier has the leverage to remedy the situation. Change has to come in a logical and unified manner by all legacy majors simultaneously - - an outcome that is highly unlikely.

- Distribution: Long before its current ills, the U.S. airline industry had made great progress in embracing the Internet, and bringing consumers to their own individual websites. They have also adopted high-tech strategies designed to impact airline revenue and cost control.
- Labor: Alaska Airlines was recently the first U.S. airline to provide for baseball-style arbitration with its labor unions – a sea change from the current process used by every other carrier and based on the Railway Labor Act of 1926.⁶

The current re-engineering exercise is, of course, not without precedent. During the last recession, several Legacy Majors responded to the perceived threat of low cost carrier competition by launching their own so-called “low cost” subsidiaries (airlines-within-airlines.) Now several years later, the Metrojet (USAirways), Shuttle by United and Delta Express experiments are considered to be failures, largely because they were anything but low cost and added *more* complexity to already cumbersome organizations. During this same period, however, new entrant and low cost carriers such as Southwest, JetBlue, AirTran, AmTran, Frontier, and WestJet have continued to make sizable (market share) inroads by embracing a business model that stressed simplicity above all else.

As the Legacy Majors begin re-engineering in turn, it is ironic that they have finally (if begrudgingly) embraced many key elements of Southwest Airlines’ business model as impetus to their own modernization efforts. For example, the de-peaking of Delta and American hubs merely validates the long-held scheduling practice of the carrier. Fleet simplification? Development of advanced IT systems and reliance on the Internet? The same – these were all developments pioneered by Southwest Airlines.⁷

1.5 THE CURRENT INDUSTRY CRISIS

American Airlines CEO Donald Carty, in Congressional testimony given in late-September 2002, highlighted the reasons for current airline industry ills. Carty told the

⁶ Ibid.

⁷ Ibid.

House Aviation Subcommittee, "...business travel -- the bread and butter -- of large network carriers continues to be way down, with remaining business travel being done at leisure fares." He added, Business flyers are 'buying down,' seeking lower, more restricted fares traditionally intended for leisure travelers." The key problem for American, he concluded, is that "only 1-in-12 passengers is flying full coach fare."

Mr. Carty concluded by stating: "Our task going forward is to re-define our business model, not only to stay a step ahead of our old rivals, but to compare and win in an environment where newer, lower-cost competition represents an ever-increasing slice of the marketplace," adding that American faces that type of competition on 70% of its routes. To change that model, American (like all Legacy Majors) recognizes the imperative to realign supply and demand and rebalance the revenue/cost relationship. (*Carty to Analysts: AA Aims to Survive, Aviation Week & Space Technology, 30 September 2002, page 47.*)

His claim that the (Legacy Major) business model is broken reflects, by implication, a dramatically different operating environment compared to the period from 1995 to 2000 that actually produced industry profits. The current state of airline affairs incorporates a number of isolated events such as the terrorist attacks of 9/11 along with a deteriorating economy that were obviously unforeseen, but perhaps more critically, also include a series of other and long standing structural issues which have gone unresolved for some time.

In a reader's letter in the October 7, 2002, issue of Aviation Week & Space Technology: "Flights are uncomfortable and unreliable, and higher fares don't address that. For long trips, I'm willing to buy business or first-class tickets, but not at the 8 to 10-times price differential. Travel on mileage awards is losing its luster, making frequent-flier programs less attractive. I have been stranded at a hub for two days because my 'free' ticket meant I had the lowest priority for a seat after my connecting flight was canceled. This is on top of unpredictable airport situations that make even a 1-hour flight something that could take a day. I'm cutting back on my air travel; it's down 50% this year and going lower

next year. I'll start flying again when the airlines offer me a better product, but that's probably going to require a new generation of carrier."

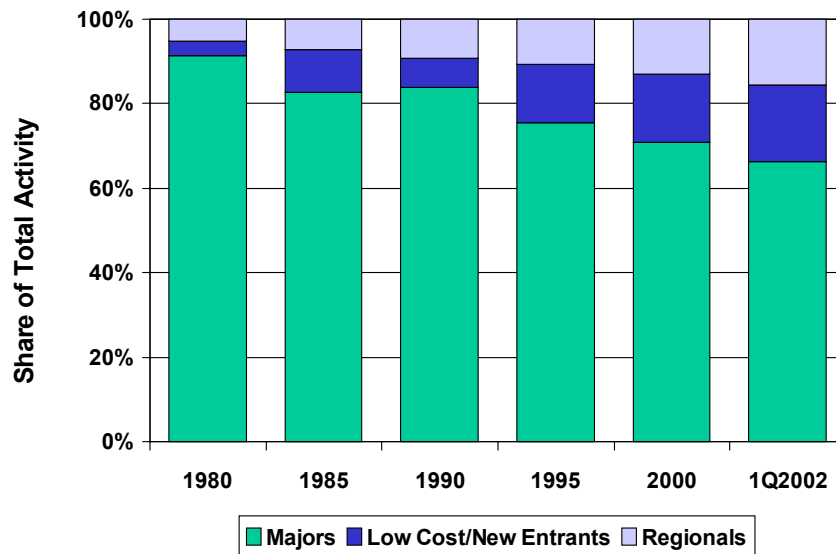
1.6 SHIFTS IN MARKET SHARE

One of the most important developments to result from more than twenty years of airline industry deregulation has been the imperative that major carriers differentiate their "product" or the service they offer consumers. When routes and fares were subject to strict government oversight, the airlines had little, if any, incentive to be creative. It was only because AirCal, P.S.A., and Southwest provided strictly intra-state schedules (and were therefore subject to state rather than federal oversight) that they were permitted to operate "outside the box" by offering low fares and innovative in-flight service.

Today, the surviving Legacy Majors continue to provide much the same array of service that they traditionally had under regulation; products that appealed to both business (high yield) and leisure (discretionary) customers on a vast system of domestic and overseas routes. The rise of "niche" carriers over the past twenty years was a direct result of the inability by the majors to successfully be all things to all people.

The following exhibit demonstrates precisely how well the new, post-deregulation (Regional and New Entrant/Low Cost Carrier) segments of the airline industry have been at tapping into consumer desire for alternative air service options. Notably, their share of total domestic passenger enplanements has grown from less than a 10% to more than one-third of total traffic activity in the post-deregulation era.

**CHANGING DISTRIBUTION OF U.S. PASSENGER ENPLANEMENTS
BY AIRLINE TYPE
(U.S. DOMESTIC TRAFFIC 1980 – 2002)**

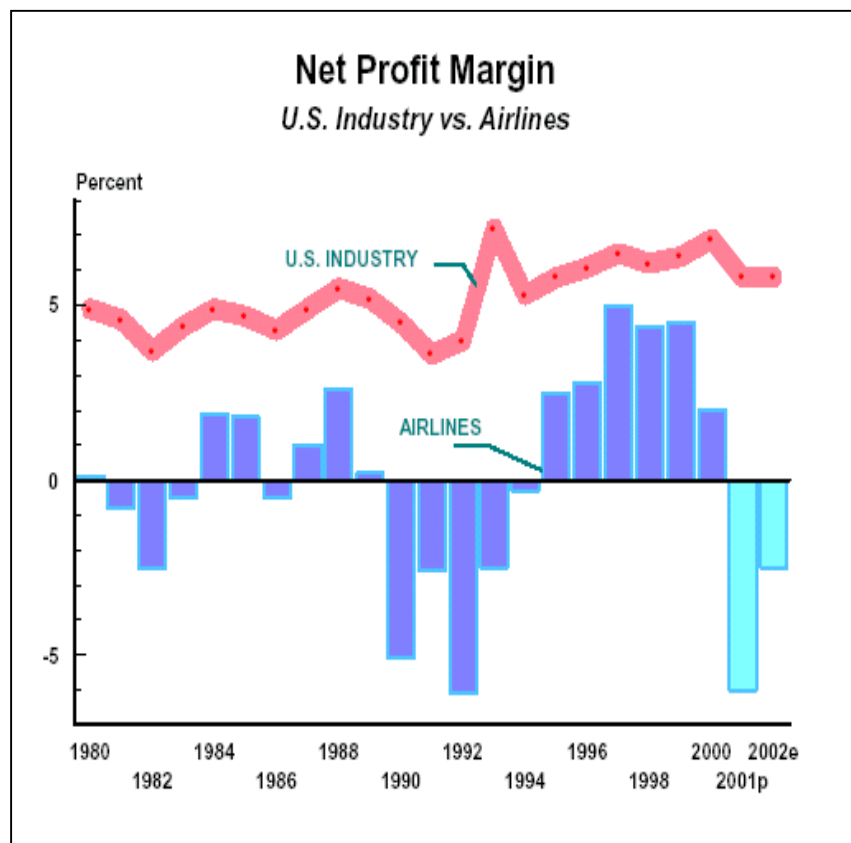


Source: U.S. Department of Transportation filings.

1.7 MARGINAL PROFITABILITY

In the year 2000, the 11 major airlines reported operating revenues of \$96.5 billion, with an operating profit of \$5.4 billion (5.6%) and a net operating profit of \$2.1 billion (2.2%). (Source: *McGraw-Hill Aviation and Aerospace Almanac, 2002*, page 14.) This was before the recession and events of 9/11 resulted in an approximately \$7 billion loss in 2001. The mediocre year 2000 net operating profit illustrates a chronic problem for the major airlines: they consistently operate at net profit margins well below U.S. industry as a whole (see Figure 2). (Note that the anticipated operating loss for the year 2002 is far greater than that anticipated when this figure was prepared- indeed, it will well exceed the year 2001 loss.)

Figure 2



Source: *State of the U.S. Airline Industry: A Report on Recent Trends for US Air Carriers* Air Transport Association, 2002, page 10.

While a number of industries, if not most, are cyclical in nature, typically this involves changes in profit margin in the positive range, as shown in the above figure. However, the U.S. airline industry has suffered massive losses twice in little more than a decade, as well as several years of net loss in the early 1980s. Furthermore, the depth of the profitability troughs in both the early 1990s and in 2001-2002 exceeded the peak profitability of any year in the relatively good (from a profit standpoint) years of the latter half of the 1990's.⁸

Nonetheless, the key point is that the U.S. airline industry is barely able to sustain itself, in capital terms, in good times, and now faces growing economic and structural uncertainty with little or no reserve to sustain itself during difficult times.

According to the study, "US Aviation Industry Restructuring," "In the run-up to 9/11, it had become abundantly clear that the Legacy Major carriers were overly if not exclusively reliant on high yield (business) travel to produce the industry's meager profit margins." This fact was confirmed by Gerald Greenwald, former CEO of United Airlines, in a speech before the Aero Club of Washington in May 1999 when he stated that as few as 9% of United's passengers produced 41% of the carrier's revenue.

Despite investments in the onboard product -- merely a distant memory today -- record levels of consumer discontent toward the Legacy Majors focused on high fares, restrictive conditions, on-time performance, airport and airway congestion, and the perceived decline in service reliability overall. The resultant changes started in the late 1990s, setting the stage for a large-scale (and potentially irrevocable) change in established consumer air travel patterns.

Long perceived to be of inferior quality by most business travelers, low cost and new entrant carriers were quick to dispel such myths given the opportunity. Indeed, the

⁸ Ibid.

growing amount of service provided by companies like Southwest, AirTran, ATA, jetBlue, Frontier, and others were seen to offer good value, especially given the higher pricing structure of most major carriers, which extracted a premium for most business-related travel activity.

It has long been acknowledged -- both internally and externally -- that the major carriers' pricing system is increasingly perceived as awkward by consumers; if not seen as completely broken. Despite individual attempts to repair the situation (American's ill-fated BusinessSaver fares, for example), it is also widely accepted that nothing short of a concerted, industry-wide, effort could ever rectify the problem -- a prospect which still remains elusive. Yield management systems have proven their mettle at filling airplanes to record levels, but if airlines cannot produce profits with high load factors, then the pricing system is clearly flawed.

This crisis environment, compounded by the possibility of more dislocation and potential further bankruptcies resulting from a war with Iraq, or just the anticipation thereof, begs a major question:

Why would the U.S. government want, in 2003, to entertain a further regulatory intervention in the database and information management system of the industry that could seriously impede the ability of airlines to manage their businesses in an optimum manner?

The 2002 Airline Profit Performance chart shown earlier (on page 4) aptly demonstrates the degree of difficulty being experienced by the U.S. major carriers. While the ten major U.S. carriers generated an operating loss in 2002 of almost \$10 billion, the three majors listed above produced 75% of the industry's loss. Moreover, in response to the ever-increasing losses, declines in traffic and revenue, these majors reduced their capacity offered in the marketplace.

At the same time, however, the low fare carriers like ATA, Southwest, and jetBlue continued to increase the amount of capacity offered, thus increasing their market shares and protecting their earnings.

Clearly, it is not the low cost/low fare carriers that need to be protected from the large network carriers, but rather the major network carriers need all the help they can muster, including the availability of data, in order to compete effectively with the low cost carriers.

THE IMPACT OF REGULATION ON THE TRANSPARENCY, INTEGRITY, UTILITY, AND COMPETITIVENESS OF DATABASES IN THE COMMERCIAL AVIATION INDUSTRY

2.0 BACKGROUND-INFORMATION SYSTEM EVOLUTION

In 1960, after a number of feasibility studies with IBM, C.R. Smith, Chairman of American Airlines, installed the first two IBM 7090 computers to operate American's increasingly complex passenger reservations systems. By 1962, this system, now known as Sabre, was able to process 85 thousand phone calls, 40 thousand confirmed passenger reservations, and 30 thousand queries, daily. Sabre became fully operational in 1964 and at the time was the largest commercial real-time processing system in operation.⁹

While peripheral to its primary function of increasing the efficiency of handling reservations services, there were a number of ancillary benefits evolving as a result of the CRS architecture. For example, by 1967, Sabre was significantly reducing manpower costs, training costs, and improving reservations systems productivity. In addition, it was evolving as a tool to enhance long range planning, sales and inventory management.

By the mid-1970s there were four major CRSs: Sabre, Apollo (Galileo), PARS, and MARS PLUS. A fifth system, SODA, came a little later. As the systems became increasingly prevalent within the agency community, agency productivity increased, along with earnings, and new incentives to book travel on the CRS of choice.

As the CRSs developed through the post-deregulation era, the U.S. Civil Aeronautics Board (CAB), and its successor regulatory agency, the U.S. Department of Transportation, became increasingly concerned with some of the functionalities and capabilities of the systems.

⁹ Global Aviation Associates, Ltd., "The History and Outlook for Travel Distribution in the PC-Based Environment," February 2001, pg. 15.

2.1 REGULATORY ISSUES EMERGE

In June 1983, the CAB outlined four areas of concern with respect to anticompetitive behavior by CRSs: display bias, booking fees, booking data, and agency contract terms. At the time, it also expressed concern with respect to barriers to entry.¹⁰

For example, systems were developed with display bias to enhance the opportunity of the owner/host airline to generate incremental revenue at the expense of its competitors. American was estimated to have generated \$350 million in incremental revenue from Sabre in 1983.¹¹ In addition, there were arguments that rates and charges by the CRSs were exorbitant and biased against non-owners. Finally, there were various concerns with the leverage of the CRSs. Various regulatory guidelines evolved covering a myriad of issues from display bias to mandatory participation rules, discriminatory pricing, travel agent/CRS contract clauses, and market access and equipment availability and usage.

Part 255.4 of the Code of Federal Regulations (CFR) prohibits CRS display bias by proscribing certain algorithms. This regulation also mandates equal treatment to all CRS participants relative to loading schedule changes and fare data. Architectural bias, however, continues. For example, a system could limit the number of hubs it would use in generating schedule options for CRS display on the basis that there were structural limitations in a system's capacity to process information and data.

Part 255.5 requires that CRSs offer the same service to all carriers participating in a given level of access, and prohibits discrimination in pricing within the various levels of access.

It was at this point that the regulators began to deal with marketing data. In Part 255.8, the agency stipulated that CRSs (airline owners) cannot discriminate against other CRSs

¹⁰ Civil Aeronautics Board, "Report to Congress on Airline Computer Reservations Systems," Washington, D.C. 1983.

¹¹ Duncan Copeland and others, "Sabre: The Development of Information-Based Competence and Execution of Information-Based Competition." IEEE Annals of the History of Computing 17, (1995) 50.

by withholding schedules (mandatory participation) and that CRSs must provide, for a fee, marketing data that they accumulate through the CRS on a non-discriminatory basis.

2.2 MARKETING INFORMATION

The U.S. Department of Transportation governs and regulates the distribution of Marketing Information Data Transfer (MIDT) through Part 255.10-Marketing and booking information. The regulation reads, in part:

- (a) each system shall make available to all U.S. participating carriers on nondiscriminatory terms, all marketing, booking, and sales data relating to carriers that it elects to generate from its system. The data made available shall be as complete and accurate as the data provided a system owner.
- (b) Each system shall make available to all foreign participating carriers on nondiscriminatory terms all marketing, booking, and sales data relating to bookings on international services that it elects to generate from its system, provided
- (c) Any U.S. or foreign carrier receiving data on international bookings from a system must ensure that no has access to the data except its own personnel and the personnel of any outside firm used for processing the data on its behalf, except to the extent that the system or a system owner provides such access to other persons.¹²

Among other features, the regulations fostered a source of information and database that was to become critical to airlines, and later to selected travel agents, by enhancing their resources and capabilities to manage their businesses.

Within the airline industry, MIDT is made available in a timely manner and contains both historical and prospective data with respect to origin and destination travel patterns. The

¹² Code of Federal Register, Section 255.10.

booking information contained source of sale, class of service booked, and other information that was useful to monitor existing and future trends for sales and distribution planning purposes, but also to give airline capacity and pricing managers the tools necessary to better fit supply and price with existing and expected demand patterns. In essence, the databases that evolved became increasingly more comprehensive and flexible in terms of assisting sales management and planning managers within airlines. The MIDT databases do not contain passenger name, credit card, or other proprietary information, and consequently there is no issue of privacy.

During the past twenty years, with the increasing evolution of the Computer Reservations Systems (CRSs), now referred to as Global Distribution Systems (GDSs), various operating and regulatory protocols have evolved. Some have been responsive to what was initially perceived as system abuses by CRS owners, and others have resulted from market forces that have driven decisions that might normally evolve in a free market environment.

2.3 INFORMATION SYSTEMS PROMOTE COMPETITION

2.3.1 History of Database Development and Utilization

Over a period of years, from the days of time-sharing and batch processing, airlines have utilized various databases to enhance their efficiency, reduce costs, and strengthen their competitive response in the marketplace. In addition, the earlier databases proved useful to airlines in determining where and how to manage sales performance.

With the evolution of the CRSs, accompanied in the early 1990s by PC-driven technology and applications, there were huge strides made by airlines in developing databases that would facilitate not only schedule and fleet planning, but also interactive online profit modeling, capacity and revenue management, and a myriad of market analysis tools that led to enhanced capacity planning and pricing. With these tools in hand, airlines have been able to better understand the market and therefore respond to

passenger demand and trends in a more expeditious and cost-effective manner. These technology and database driven enhancements have benefited the consumer in that carriers have been able to both reduce the cost of air travel and to provide pricing that is responsive to day-to-day changes in the competitive environment.

2.4 USER SURVEY

In order to evaluate the benefits of the existing fully transparent and nondiscriminatory databases, we reviewed the availability and uses of various data sets. In addition, we discussed the use of the various systems with different users through phone surveys, direct discussions and e-mail interviews. Within the airline industry, we focused on schedule planning, distribution system management, sales administration, and long-range planning executives of numerous U.S. and foreign air carriers. We also talked with representatives of GDSs. In addition, we rely on past economic and network analysis performed by Global Aviation Associates, Ltd. (**ga²**), for various carriers that has required the use of MIDT databases, as well as other primary sources of data such as the DOT origin and destination data base (ODIA/Superset), Bank Settlement Plan (BSP), IATA Clearing House, Ticket Control Number (TCN), and related data sets.

Opinions of the various groups interviewed varied considerably with respect to the relative merits of one database versus another. However, certain themes emerged:

1. Market, schedule, and route planning departments of airlines utilize and require a combination of databases, and prefer to see all existing databases maintained intact. There was something of a consensus that the loss of any individual dataset would encumber the efficiency of the planning process, to the detriment of the consumer.
2. Distribution and sales planning and administration personnel generally believe that the MIDT data is at the core of their tools. There were comments to the effect that recent reductions in the size and scope of sales forces were accomplished without significant losses in efficiency only because of the

- availability of databases such as MIDT which facilitate extensive exception monitoring without having large sales staffs calling on agency and corporate clients.
3. There is recognition on the part of airline sales administration executives that comprehensiveness and transparency of the data has provided them with a powerful analytical tool that enhanced their capacity to implement efficient and effective performance-based contracts with their distributors, the travel agents. Until recently, the airline had the information advantage in contract negotiations because of its access to MIDT. It is important to note however that this situation is changing. The GDS's and systems vendors, such as Shepherd Systems, have developed and deployed MIDT-based intelligence tools designed specifically to give travel agencies the analysis they need at an appropriate and affordable cost. Natural market forces are thus at play, leveling the information playing field. Consequently, as contract negotiations between the parties are conducted with maximum transparency on both sides of the table, all parties, including the consumer, will benefit.
 4. In a number of cases, the MIDT data is the primary source of information, and in others, it merely confirms what is known from other data sources. Consequently, the airline managers believe that for the government to restrict and intervene in the data handling as it is established would be to discriminate against MIDT versus other data sets.

The transparency of all data sets, including MIDT, has led to a more competitive and consumer-driven environment, primarily because it facilitates better decision making, more efficient and timely responses by airlines in terms of service and fares, and because all parties to the transaction have access to the data.

As a consequence of the trends in usage of databases, both airlines and private sector vendors such as Shepherd Systems have evolved more sophisticated functionality for the raw data, and in the case of non-airline vendors, there have been strides in terms of

simplification that are leading to reduced costs to the end users and greater availability and utility of the data for users other than airlines, e.g., travel agencies.

In addition, Shepherd Systems, for example, has developed MIDT intelligence systems that are priced for the smaller air carrier, and has smaller carrier clients buying the database management systems and evaluation tools. Its air carrier clients range from the mega-carriers such as American, Lufthansa, and Cathay Pacific to mid-sized carriers such as Alaska and others such as Qatar Airways, ANA, SAS, LanChile, and Air Zimbabwe. These carriers obviously recognize the benefits of comprehensive, transparent, and unrestricted data to their managing and planning efforts. In addition, there are close to twenty travel agencies currently testing Shepherd Systems' MIDT-based information intelligence systems.

**THE IMPACT OF REGULATION ON THE TRANSPARENCY, INTEGRITY,
UTILITY, AND COMPETITIVENESS OF DATABASES IN THE
COMMERCIAL AVIATION INDUSTRY**

3.0 THE CRS REGULATORY ENVIRONMENT

**3.1 HISTORY AND EVOLUTION OF THE REGULATORY
ENVIRONMENT**

The first rules governing CRSs were adopted in 1984, pursuant to a study by the Civil Aeronautics Board, in consultation with the Justice Department (49 Fed. Reg. 32540, August 15, 1984).

This study took place at a time of emergence of the CRS as the core vehicle for the distribution of travel. An issue addressed at the time was “Access to Proprietary Information.”¹³ The report states, “A second information-related problem lies in the actual sales, i.e., marketing information stored within automated reservations systems. This information consists of actual detailed sales data from individual agents and other subscribers identifying the airlines on which they have sold transportation, the city-pair segments involved and the number of seats sold, and the identity of the customer.”

The report continues, “A number of proprietary carriers currently prepare monthly reports on each travel agent or subscriber location that sets out the reservations the agent has made on a given airline...” It was well known in the mid-1980s that the use of marketing information could present problems, but it was recognized by the Civil Aeronautics Board and the Department of Justice, and noted in their referenced study, that there were competitive advantages in that carriers could plan better, and they could monitor the performance of their competitors. To the detractors of such a database-enriched system, the joint study noted, “A response that has been offered is that on-board surveys that are used by all air carriers, provide a much better source of information.” Thus, the battle lines were pitched in 1984 and, until the recent NPRM, there has been no suggestion by

¹³ Civil Aeronautics Board, “Report to Congress on Airline Computer Reservations Systems.”

any of the regulatory bodies that transparency, nondiscrimination, and completeness of data was something to be eschewed as anticompetitive.

The potential advantages and disadvantages of full disclosure and transparency were known at an early stage in the development of CRSs. In order to deal with potential abuses in the use of information, as one of many issues addressed, the DOT established a rulemaking in 1984, and updated that rulemaking in 1992. The rule was to expire, unless renewed, in five years, although it was once again extended in 1997 and then again in 2002 and 2003.

Throughout this period of time, and until 2002, the regulatory philosophy of the U.S. Department of Transportation became more market based. In this context, the CRS regulations were extended but not revised, in part because the Department recognized that technology, the competitive environment, and external market conditions were evolving more rapidly than a government regulatory agency could anticipate.

Also throughout the period, numerous studies of the CRS industry were undertaken by the Department, the General Accounting Office, and public sector economists with either academic or client interests in the subject.

The major aviation-based studies reviewed did not recommend suppressing public information as a vehicle to enhance competition.

3.2 CURRENT REGULATORY ENVIRONMENT

Today's regulatory environment relative to CRSs/GDSs is, at best, confused. Significant changes have occurred since the early days of the GDS. Among other things, there is very little airline ownership in the GDSs. Moreover, the Internet has evolved and grown as a low cost vehicle to distribute travel.

In these circumstances, it is becoming increasingly difficult for the regulator to divine the direction and scope of the changes.

Consequently, from the late 1990s the Department postponed taking action, in part because it knew that what it didn't know was such that it was better to not deal with the regulations, but rather let the market evolve and mature. Arguably, the current NPRM should continue to be postponed since the evolutionary process continues unabated and there is little clarity relative to the outcome.

3.2.1 Database Management in the Current Environment

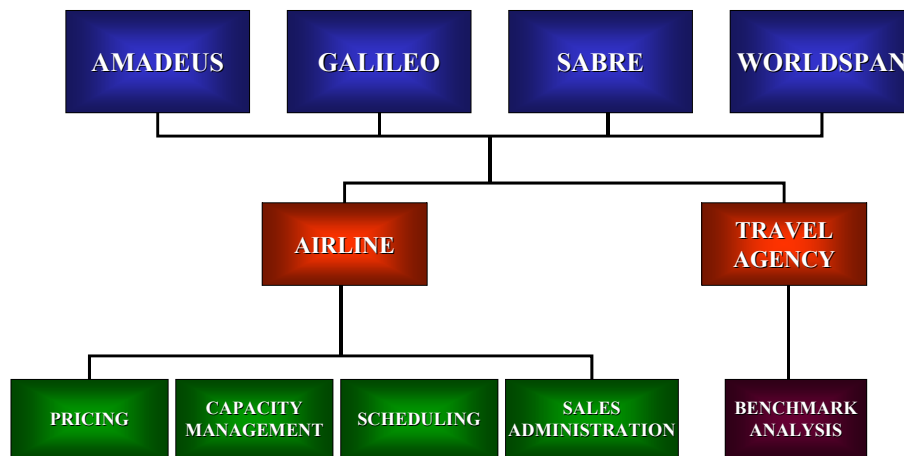
Currently, major network airlines are attempting to optimize their utilization of the various available databases in order to improve efficiency, lower unit costs of production, and design better pricing and inventory control models, among other things. Within the fragile state of the industry, it would seem imprudent to begin pairing back and limiting data availability when such limitations could well further exacerbate an already fragile financial situation.

Schedule and route planning is under pressure because it is clear that substantial excess capacity has removed pricing power from the industry. Thus, there is an increasing necessity for schedule and fleet planning to be in a rapid-response mode. In order to do that, it is important for airlines to have all of the available data, and in a timely manner. This means historical and prospective data since the outlook for the future, based on advanced bookings, can drive changes at the scheduling level that can enhance both the level of capacity offered and the mix of the fleet being used.

Pricing is a critical component and the availability of MIDT data, particularly advance booking information, by region and down to the major agency level, can be critical in the ability of an air carrier to understand the implications of, and respond to, competitive price moves. This becomes the essence of competition and should not be suppressed under any conditions.

Moreover, given the variety of databases with a myriad of data sets and features, why would the DOT opt to further regulate one of those databases, the MIDT, when such interference and regulatory intervention is likely to lead to less transparency, less comprehensiveness, lower efficiency, and to discrimination against the MIDT user?

DATABASE MANAGEMENT MIDT



The Department’s Notice of Proposed Rulemaking (NPRM) deals explicitly with MIDT, and notes, “Airlines use the data for marketing research and route development purposes and to make decisions on pricing and revenue management. They also can use the data to implement their override commission and corporate discount fare programs, which typically require travel agencies and corporate customers to give an airline a certain share of their total business in order to receive the additional commissions or discount fares. While most airlines purchasing the data are the larger airlines, some smaller airlines like Alaska also buy the data. Galileo states that about forty-five airlines buy its data tapes. Galileo Supp. Reply at 11.”

After a lengthy discussion, the NPRM concludes, “Our rule on marketing and booking data has thus generated two issues: whether the systems fees for the data should be limited and whether the type of data released by the systems should be restricted.” Thus, contrary to its recent past propensity to avoid interfering in the marketplace, the Department has decided to intervene on behalf of smaller low-fare carriers that are clearly doing quite well, contrary to their major legacy network competitors, and on behalf of the travel agency community. The intervention takes the following form, and therefore becomes a significant issue in the context of airline analysis and efficiency.

The Department’s position as set forth in the NPRM is, “To protect competition from the possible misuse of the data tapes by dominant airlines, the type of data sold by the system should be limited to information which would serve legitimate marketing needs.” And further, “Our goal is to allow the systems to sell as much data as possible while minimizing the potential harm to airline competition and to enable travel agencies to protect potentially proprietary business data.” It further states, “The availability of much other domestic data from other sources also makes the CRS data less necessary for marketing purposes.”

On the issue of comprehensiveness of the MIDT data, the Department has now tentatively concluded that carriers should be allowed to opt out of having its data provided through the dissemination of MIDT. Thus, the Department tentatively proposes the following in this regard, “A ban on the release of data on bookings for airlines that have not consented to the release of data on their bookings. Any such restriction presumably would allow each airline to obtain marketing and booking data from a system only if it had consented to the system’s release of data derived from its bookings to other airlines willing to purchase the data.”

Thus, we have the backdrop of an industry in dire need of optimization, both for its own survival and for the enhancement of consumer choice, being confronted by a proposed Department intervention in the database management system, which is today fully comprehensive and transparent in order to, it argues, preserve competition.

**THE IMPACT OF REGULATION ON THE TRANSPARENCY, INTEGRITY,
UTILITY, AND COMPETITIVENESS OF DATABASES IN THE
COMMERCIAL AVIATION INDUSTRY**

**4.0 NOTICE OF PROPOSED RULEMAKING (NPRM) ON COMPUTER
RESERVATIONS SYSTEMS –Docket OST-1997-2881**

On September 10, 1997, the DOT issued an Advanced Notice of Proposed Rulemaking (ANPRM) covering previously established regulations governing CRSs. A supplemental ANPRM was issued in July 2000. These rulemaking notices were designed to solicit comments from all interested parties and thereby aid the Department in determining the appropriateness of the existing regulations.

The Department, as a result of comments received from various parties, issued a NPRM on the substance of the regulations on November 15, 2002. In that NPRM (D.OST 1997-2881), the Department proposed a large number of very significant modifications to the existing regulations, predicated on the vast array of comments received between September 1997 and November 2002. As the Department noted in its NPRM to extend the effective date of the regulations from March 31, 2003, until January 31, 2004, “We recently issued a notice of proposed rulemaking where we tentatively concluded that most of the rules may remain, at least in the short term, although we proposed to eliminate some rules and to change others.”

The most significant features of the current NPRM are:

1. There is no sunset date, for the first time.
2. The mandatory participation rule has been eliminated. This will allow airlines that own or market CRSs to participate in only those CRSs they select. They will no longer have to participate in all CRSs.
3. There will be no regulations covering the sale of airline services via the Internet.
4. The rule against discriminatory fees would be eliminated.
5. Rules against display bias will be maintained.

6. Elimination of a rule that permits CRS equipment owners to block an agent's use of that equipment to access other systems.
7. Revisions to the provision covering productivity pricing.
8. Revisions that would limit the transparency, availability, comprehensiveness and utility of MIDT databases.

It is the latter that we have been focusing on in this study.

As set forth by the Department in its November NPRM;

“Our rule, section 255.10, currently requires each system to make available marketing and booking data that it chooses to generate from bookings made by system users. A system could choose to generate no data. The rule does not bar a system from providing data to anyone outside the airline industry. The rule blocks systems from providing data to any foreign airline that owns or controls a system in a foreign country, if that system does not provide comparable data to U.S. airlines.”

“Each system's data show how many bookings are made by each travel agency using that system on each airline in individual markets, the fare basis used for each booking, and the flight booked by each passenger.” And further, “The systems make the data available almost on a real-time basis.”

The Department aptly notes, “Airlines use the data for marketing research and route development purposes and to make decisions on pricing and revenue management. They also can use the data to implement their override commission and corporate discount fare programs, which typically require travel agencies and corporate customers to give an airline a certain share of their total business in order to receive the addition commissions or discount fares.”

4.1 SOURCE OF PROPOSED CHANGES TO CRS REGULATIONS

At the core of the Department's proposed revisions are three organizations and two substantive changes. The organizations objecting to the current use of MIDT are the Air Carrier Association of America (ACAA), the National Business Traffic Association (NBTA), and the American Society of Travel Agents (ASTA). While the concerns and arguments made by each is somewhat diverse and diffused, each would like to restrict the availability of the MIDT data in some form in order to block competitor airlines (or carriers in general) from monitoring their market and sales performance. A system which is totally transparent and nondiscriminatory today, would become opaque, limited, and somewhat discriminatory versus other available systems that provide much the same, and in some cases, more data. The only feature of the MIDT database that is somewhat unique to MIDT is its timeliness. Even that, to a degree, is available through the ARC database.

ASTA and NBTA argue that the availability of booking data to airlines allows those airlines to unreasonably "leverage" the sales agent. That is, the airline will take action against an agent if it sees too many bookings on another airline. This argument, of course, ignores the "other" airlines response that would neutralize the first airlines' action. In any event, the agent/middleman, according to ASTA and NBTA, does not want the supplier to know what he the distributor is selling.

The ACAA is proposing a similar restriction of data, although in this case, it is in the form of a rule that would allow any carrier to "opt out" of having its data distributed to buyers of the MIDT database. The result of such a rule, of course, would be to denigrate the database's value.

For the airlines, U.S. and foreign, the database is a crucial planning and management tool, and while most carriers interviewed recognized that over a number of years, the efficacy of the data could be marginalized, most voiced a concern with what could be the

loss of an important information management tool during a time of extreme financial stress on airline profitability.

4.2 IMPACT OF PROPOSED CHANGES TO MARKET BASED SYSTEM

4.2.1 Comprehensiveness

Carriers interviewed were concerned that the types of limitations proposed in the NPRM could preclude their ability to use the MIDT data at all. This concern seems to be related to the carriers' view that if certain components of the data were to be suppressed, the utility of the database could become sufficiently marginalized so that the added value of the data to other sources would no longer justify its cost.

4.2.2 Discriminatory Nature Of The Proposal

Should the Department implement the proposed rule change covering MIDT, it would effectively be intervening in the market to give an edge in the provisioning and management of databases to other source databases such as ODIA and Airline Reporting Corporation (ARC), over that of MIDT. While many other databases provide excellent planning tools to airline managers, none offers the timeliness of data offered by MIDT.

4.2.3 Cost Effectiveness

The suppression of data components or fields would likely lead to higher airfares. When market information is less than fully transparent, market planning and pricing activities will be less than optimum. Should this occur, then those inefficiencies will, over time, be passed through to the consumer in the form of higher fares.

4.2.4 Limits Competition

A free and open market is generally characterized by full transparency. When transparency exists, as is the case under today's rule, there is more likelihood that service providers can respond more quickly to changes in a competitor's offerings. This is consistent with the objectives of airline deregulation as set forth in the Airline Deregulation Act of 1978, and the objectives set forth in the November 2002 NPRM.

The rationale for the proposed intervention by the Department is to enhance and promote competition. The implication of its language is that the major network carriers are utilizing the data for anticompetitive activities, and that the rule changes would solve those problems.

First, there are a myriad of other databases that will permit anticompetitive activities, should that be the objective of a carrier, and second, if—and that is a question—the problem is real, then it should be dealt with in the appropriate manner. That is, the Department should invoke 49 U.S.C. 41712 (old Section 411 of the Federal Aviation Act). This provision states, in part:

“The Board may, upon its own initiative or upon complaint by any air carrier, foreign air carrier, or ticket agent, if it considers that such action by it would be in the interest of the public, investigate and determine whether any air carrier, foreign air carrier, or ticket agent has been or is engaged in unfair or deceptive practices or unfair methods of competition in air transportation or the sale thereof.” And further, should it find such anticompetitive practices, “it shall order such air carrier, foreign air carrier, or ticket agent to cease and desist from such practices or methods of competition.”

In this set of circumstances, the Department is setting out to solve a problem that has not been demonstrated to exist with what is clearly the wrong set of tools.

4.3 ADVERSE IMPACT ON THE CONSUMER

In its effort to be responsive to the various interest groups affected, the Department has moved beyond its role as a guardian of the “public interest” and into the role of choosing sides. This has put the Department on the slippery slope of supporting the repression of information and transparency, and favoring one side of a debate versus another, e.g., withholding agency identification under the “theory” that less transparency is good for competition. Quite the contrary, it has not been demonstrated, at least in commercial aviation, that transparency of information and equality of opportunity are adverse to the public interest.

Ultimately, when data and information is restricted, it generally means that the public or consumer does not have access to the best options at the optimum price. The same travel agency constituency that argues for restrictions on booking data has taken the position that all fares offered by any carrier must be available for sale to the public through all available channels, including travel agents.

If the forward-looking booking data, by geographic area and by point of sale, is not available to the airline planning and pricing manager, the airline can hardly be expected to provide the optimum level of price competition. It will only know its own booking patterns and outlook. That is not in the public interest.

--END--